

BARNES & THORNBURG



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group: 1642
Confirmation No.: 5816
Application No.: 09/822,379
Invention: Method of Treatment Using Ligand-Immunogen Conjugates
Applicant: Low et al.
Filed: March 30, 2001
Attorney Docket: 3220-67883
Examiner: Karen A. Canella

11 South Meridian Street
Indianapolis, Indiana 46204
(317) 236-1313
✓ (317) 231-7433 Fax

Certificate Under 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450

on 4/22/05

Rebecca Ball

(Signature)

Rebecca L. Ball

(Printed Name)

DECLARATION UNDER 37 C.F.R. § 1.131

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I, Philip S. Low, a citizen of the United States of America and resident of West Lafayette, Indiana, do declare and say that:

I am one of the named inventors on the captioned application for patent filed on March 30, 2001. The captioned application claims priority to U.S. Patent Application No. 60/193,944, filed on March 31, 2000 and to U.S. Patent Application No. 60/255,846, filed on December 15, 2000. I understand that the Examiner has rejected claims 43, 45, 46, and 50-52 of the application under 35 U.S.C. § 103(a) over Cowan (WO 01/32207) in combination with other references. Cowan was published on May 10, 2001 and has an International Filing Date of January 19, 2000.

The invention described and claimed in the captioned application was conceived and reduced to practice in this country prior to January 19, 2000.

The invention described and claimed in the captioned application comprises methods and compositions for enhancing an endogenous immune response-mediated elimination of a population of cancer cells comprising administering a composition comprising an immunogen conjugated to a folate receptor-binding ligand and a compound capable of stimulating an endogenous immune response wherein the compound does not bind to the conjugate.

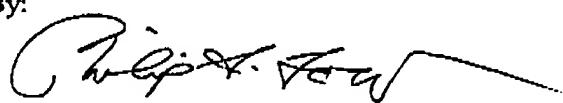
Exhibit A is a copy of a figure that contains the same data as is shown in Fig. 1 of the patent application except that for Fig. 1 in the patent application the assay was extended for a longer period of time (*i.e.*, to about 65 days post tumor implantation). The assay from which the data shown in Exhibit A was obtained was performed in my laboratory by Yingjuan Lu, the other named inventor on the captioned application. The date that the assay depicted in Exhibit A was completed is shown on Exhibit A, but that date has been redacted. The redacted date is earlier than January 19, 2000.

The data in the figure shown in Exhibit A was obtained from an assay in which mice were treated with folate-immunogen conjugates in combination with cytokines. Accordingly, the claimed invention was conceived and reduced to practice in the United States prior to January 19, 2000.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, or any patent issuing thereon.

Dated: *April 7, 2005*

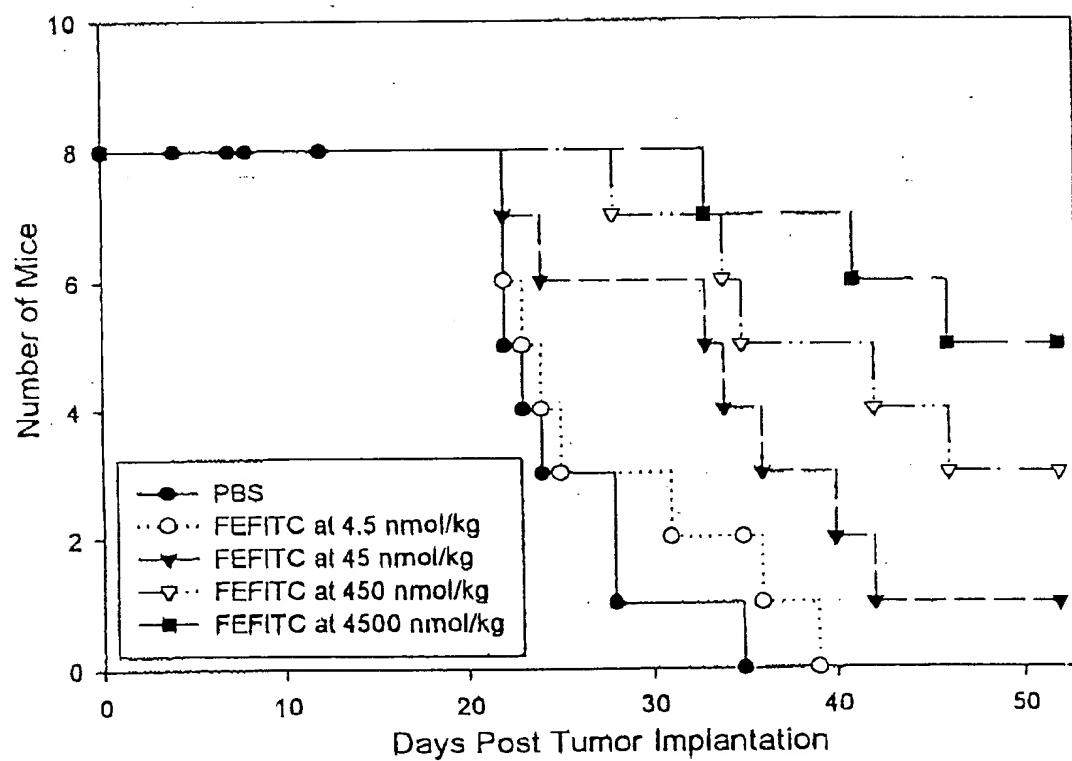
By:



Philip S. Low, Ph.D.



Fig. 2



*All mice were implanted with i.p. M109 tumors and treated with same doses of IL-2 at a schedule of qd \times 5

EXHIBIT A

to 1.131 Declaration

CURRICULUM VITAE

Name: Barton A. Kamen
Birth date/place: September 30, 1948, New York, NY
Citizenship: U.S. Citizen
Address: 3 Sleepy Hollow Lane
Princeton Junction, NJ 08550
Phone: Home: (609) 936-0660
Work: (732) 235-8864 FAX (732) 235-8234
E-mail kamenba@umdnj.edu
Marital Status: Married 1976, Ruth Saletsky Kamen, Ph.D.
Daughter: Libby, born 9/24/91

EDUCATION

College: Western Reserve University, Cleveland Ohio, 1970, B.A.
Graduate School: Case Western Reserve University, Cleveland, Ohio, 1976,
Ph.D. Case Western Reserve University, Cleveland, Ohio, 1976,
M.D.

HONORS

1976 Herbert S. Steuer Award for Research in Department of Anatomy,
Alpha Omega Alpha, 1976
Cooley's Anemia Foundation Award (Connecticut), 1978
Damon Runyon/Walter Winchell Cancer Fellowship, 1979-80
Leukemia Society of America Scholar, 1983-87
Burroughs Wellcome Clinical Pharmacology Award, 1987-1992
Founder's Award, Southern Society Pediatric Research, 1989
Student Clinical Teaching Excellence Award, 1991
American Society of Clinical Investigation, 1992
Carl B. and Florence E. King Distinguished Chair, 1993-
American Cancer Society Clinical Research Professorship, 1994-

BOARD CERTIFICATION/MEMBERSHIPS

American Board of Pediatrics
American Board of Pediatrics (Sub-Board of Hematology/Oncology)
American Association for Cancer Research
Society for Pediatric Research
American Federation of Clinical Research
American Society of Clinical Oncology
Southern Society for Pediatric Research
American Society of Clinical Investigation
American Society Pharmacology and Experimental Therapeutics
American Pediatric Society

PROFESSIONAL TRAINING/POSITIONS

1976-77	PL1, Yale University School of Medicine (Pediatric Resident)
1977-78	PL2, Yale University School of Medicine (Pediatric Resident)
1978-79	Clinical Fellow Pediatrics, Fellow in Medical Oncology
1979-80	Damon Runyon/Walter Winchell Cancer Fellow, Department of Pharmacology and Pediatrics, Yale University
1980-83	Assistant Professor of Pediatrics and Pharmacology, Midwest Children's Cancer Center, Medical College of Wisconsin, Milwaukee Children's Hospital, Milwaukee, Wisconsin
1982-83	Member, Graduate School Faculty
1983-84	Associate Professor of Pediatrics and Pharmacology, Midwest Children's Cancer Center, Medical College of Wisconsin, Milwaukee Children's Hospital, Milwaukee, Wisconsin
1984-89	Associate Professor of Pediatrics and Pharmacology, The University of Texas Southwestern Medical School, Dallas, Texas.
1990-99	Professor of Pediatrics and Pharmacology, The University of Texas Southwestern Medical Center, Dallas, Texas.
1993-99	Carl B. and Florence E. King Foundation Distinguished Chair of Pediatric Oncology Research
1994-	American Cancer Society Clinical Research Professor
1999-	Professor of Pediatrics and Pharmacology, Director of Pediatric Hematology-Oncology and Associate Director of the Cancer Institute of New Jersey, University of Medicine and Dentistry of New Jersey Robert Wood Johnson Medical School
1999-	Member Graduate Program in Cellular and Molecular Pharmacology, Robert Wood Johnson Medical School

COMMITTEES\EDITORIAL RESPONSIBILITIES

1981- Pediatric Oncology Group (POG) New Agent and Pharmacology Committee

1981-89 Pediatric Oncology Group Lymphoid Disease Committee

1981-84 Chairman Carcinogen Committee The Medical College of Wisconsin

1982-84 Member, Graduate Faculty The Medical College of Wisconsin

1982-83 Vice Chairman, New Agent and Pharmacology Committee

Head of New Agent Section, Pediatric Oncology Group

1983-86 Executive Committee of Hematology/Oncology Discipline Committee Pediatric Oncology Group

1983-87 Associate Editor, Methotrexate Update

1983-88 Chairman, New Agent and Pharmacology Committee, Pediatric Oncology Group

1983- Advisory Board, Who's Who in America (for Cancer Specialists)

1984- Biohazards Committee

1984-96 Pharmacy & Therapeutics Committee, Children's Medical Center & Parkland Memorial Hospital

1984-86 Transfusion Committee, Children's Medical Center

1985- Head, Pharmacy & Therapeutics, Children's Medical Center

1986- Director, Intern Selection Committee, Department of Pediatrics, UTSouthwestern Medical Center

1986- Institutional Review Board for local American Cancer Society

1987- Editorial Board, Cancer Therapy and Control

1988- Member Graduate Faculty, UT Southwestern Graduate School of Biomedical Sciences

1989- Secretary Medical Staff, Children's Medical Center

1990-93 Scientific Advisory Board - Chemotherapy and Hematology, American Cancer Society (National)

1991- Advisory Board PDQ (NCI data base for cancer treatment)

1992-93 Program Planning Committee for the American Society Clinical Oncology for Pediatrics and Pharmacology

1992- Editorial Board, Cancer Chemotherapy and Pharmacology

1993-94 Program Committee, AACR

1993- Associate Editor, Cancer Research Therapy and Control

1993-94 Chairperson/speaker/program committee, AACR symposium, Editorial Board, Pharmacotherapy

1993- Review Committee Medical Student Basic Science Education

1993- Search Committee, Chair Dept. of Cell Biology and Neuroscience

1993- Board of Directors AW Harris Faculty club

1993- Elected member-at-large of Medical Service, Research and Development plan at UTSouthwestern

1994- Editorial Board, Clinical Cancer Research

1995- Education Committee, AACR meeting 1996

1995-1999 Admissions Committee, MSTP (MD/PhD) program, UTSouthwestern

1995-1997 Search Committee Director of Simmons Cancer Center

1996-1999 Editorial Board, Journal of Clinical Oncology

1996- Board of Directors: Clayton Dabney Foundation for Kids with Cancer

1996- Advisory Group on Research Evaluation and Targeting: American Cancer Society

1996- American Society Clinical Oncology Subcommittee Phase I Clinical Trials

1996- Interim Director, Clinical Research Office, Simmons Cancer Center

1997- Editorial Board, Pediatric Hematology and Oncology

1997- Editorial Board, Cancer Therapeutics

1998- Program committee, AACR Phase I clinical trials

1998- Advisory Committee Burroughs Wellcome Fund Clinical Scientist Awards

1998- Publication Relations and Communications Committee, AACR

1998- Scientific Editor, Pharmacotherapy

1998- Associate Director Simmons Cancer Center (director of exptl therapeutics)

1998- Research Program Evaluation Advisory Group, American Cancer Society

1999- Leukemia and Lymphoma Society of America Translational Research Grant Review Committee

2000- Program Committee AACR and AACR-EORTC joint meeting

2000- AACR program committee and session chair: clinical pharmacology, modality based, invited speaker at mini-symposium.

2001- Chair, American Cancer Society Nominate Peer Reviewers Advisory Group

2001- Editorial Academy, International Journal of Oncology

2002- AACR co-chair of discussion session of gender, age and race in clinical trials, pediatric meet the expert and faculty member of scientist-survivor program (also for 2001 meeting)

2002- Editorial Board of CURE

2002- Selection Committee AACR fellowships

2003- Editorial board, Cancer Therapy

2003 AACR forum chair/speaker - Metronomics

2003 AACR faculty/meeting chair scientist-survivor program

2003 AACR Pediatric Oncology Task Force

2003 Member Institutional Review Board

2003 Committee of Review (faculty review)

2004 AACR co-Chairman, Pediatric Symposium

2004	Editor-in-Chief Journal of Pediatric Hematology-Oncology
2004	Editorial Board Current Pediatric Reviews
2004	Editorial Board Journal of Chemotherapy
2004	New Jersey Commission on Cancer Research (NJCCR)(one of 11 member board)

Some Examples of Additional Current and Past “Academic” Activities:

PhD Committee(s): University of Buffalo and Roswell Park Memorial Institute
Reviewer for: Cancer Research, Clinical Cancer Research, Cancer Chemotherapy Pharmacology, Biochemical Pharmacology, Journal Biological Chemistry, Journal Clinical Investigation, Journal Clinical Oncology, Pediatric Hematology/Oncology, Journal National Cancer Institute, Journal Medical and Pediatric Oncology, Pharmacotherapy, New England Journal of Medicine and others.

Ad Hoc Site Visit Cancer and Pharmacology Programs for NIH/NCI and Experimental Therapeutics study section. Special Reviewer for Scientific Advisory Board of St Judes Children's Research Hospital. Reviewer for NIH contracts/ grants for Phase I/II drugs and the RAID program for new drug development. Reviewer for American Cancer Society, Special Grants. Board of Trustees, Dallas Chapter Leukemia Society of America. Advisory Board, Komen Foundation (breast cancer research). Board member and President elect, Dallas County Chapter American Cancer Society.

Teaching Responsibilities: Texas: In addition to in patient attending 8-10 weeks/year (pediatric oncology), one day/week was spent in clinic with “routine hematology/oncology and ½ day/week seeing adults in consultation for phase I/II therapy. There was also weekly tumor board. I also lecture third year medical students 6 times/yr about pediatric oncology, teach Anti-Cancer Pharmacology to second year medical students and the advanced pharmacology course for graduate students (mechanisms of drug action) and lecture first year medical students about purine and pyrimidine metabolism. New Jersey: Lecture graduate students and medical students about Pediatric Oncology and Pharmacology. Attending physician approximately 8 weeks/year and weekly clinic. First year biochemistry lecture: clinical correlates of purine and pyrimidine metabolism. Participate in Princeton University undergraduate program for pred-medical students.

Past support (not inclusive of industry, local philanthropy and consulting)

American Cancer Society, DHP68 (originally CH228), A Study of Mechanisms of Resistance and Toxicity to Anti-Folates. **B Kamen PI**, $\cong 30\%$ effort. **1981-1996** $\cong \$100,000/\text{yr}$ (terminated by age...rules of ACS).

NIH CA34840, Interaction of Organ Irradiation and Cancer Drug Pharmacology. **B Kamen, John Holcemberg Co-PI** 30%. **4/1/82-3/30/87**. Total direct cost \$541,580.

NIH, CA52625-03, Folate receptor as a marker and target in cancer therapy. **B Kamen, PI**, 30% effort. **7/90-6/93**. Total direct costs \$220,000,

NIH, GM43169-01, Molecular cytology of the folate receptor. **Co-PI RGW Anderson, B Kamen**, 5% effort. **8/90-7/95**. Total direct cost \$674,000.

NIH, CA33625, Pediatric Oncology Group Activities. G Buchanan Pl. **B Kamen** 5%. **1/01/93-12/31/93**. Total direct \$189,663.

NIH, CA09640-04, Pediatric Hematology and Oncology research Training Grant. G Buchanan Pl. **B Kamen** 5%. **03/01/90-02/28/94**, Direct (3/93-2/94) \$131,962.

NIH, UO1 CA60431, Pharmacologic Studies of Acute Lymphoblastic Leukemia. **B Kamen PI**, 10% effort, **9/1/93-8/31/97**, Total direct cost \$601,680.

Small grants for therapeutic trials (NIH): A case for aminopterin in the treatment of leukemia. **B Kamen PI**, 5% effort, **6/96-5/31/98**. Total direct costs \$101,184.

March of Dimes Birth Defects Foundation: Role of folic acid and homocysteine as risk factors for neural tube defects. R. Finnell Pl. **B. Kamen** 10%, **6/98-5/2000**, total direct $\cong 125,000$.

NIH, CA Modulation of drug resistance in CNS tumors. D. Kokkinakis, Pl. **B Kamen**, 5 % time. **9/98-8/01**. Total direct cost \$345,006

Parker Hughes Trust: A case for aminopterin in the treatment of leukemia. **B. Kamen PI** **1/97-12/97**. \$50,000.

Scholar Leukemia Society of America, **B. Kamen PI** salary support **1983-1987**, \$30,000/year.

Burroughs Wellcome Clinical Pharmacology Award, **B. Kamen PI** salary support **1987-1992**, \$50,000/year

Carl B. and Florence E. King Distinguished Chair in Pediatric Oncology Research, **B. Kamen PI** **1993-1999**, $\cong 50,000/\text{year}$.

Texas Dept. of Health. Folate Seroprevalence of Texas Women. **B. Kamen, PI**
6/99-01. Total Direct \approx \$45,000.

HD35396 *Folate receptor knockouts, arsenate and birth defects.* R. Finnell, PI,
4/97-3/02. B. Kamen, 5% time. Total direct cost \$789,580.

01-1080-CCR-S-O New Jersey Commission for Cancer Research. *Cerebral*
folate transport:role in Cancer treatment. J. Wollack PI, **B. Kamen 5% time.**
6/01-5/03. Total \$97,900, first year \$50,000.

FD-R-001458-NIH, Aminopterin in Adults and Children with Acute Leukemia. **B.**
Kamen, PI 9/30/00-9/29/03. Total direct costs \$116,500.

Current:

American Cancer Society Clinical Research Professorship (CRP-6) **B. Kamen,**
PI Salary Support 1994- \$60,000/ year.

ACS Supplement to above: \$10,000/yr for supplies or partial student stipend.

FD-R-001832, A Pilot Study of Aminopterin for Patients with Acute
Lymphoblastic Leukemia. **B. Kamen, PI 9/30/00-9/29/05.** Total direct cost
\$440,000.

New Jersey Commission on Cancer Research: Pilot trial of dextromethorphan in
cancer related fatigue. S Goodin PI, **B. Kamen 5% time.** \$35,000
2003-2004

Damon-Runyon Walter Winchell/Eli Lilly Translational Award (mentored
research) PI P. Cole, Mentor B. Kamen. 7/03-6/08. total award \$995,000.

NIH R43 CA109801-01: Novel Oral Trojan-Horse Agents For Osteolytic Cancer
Goldstein, Alex, S. PI, B. Kamen, 5% time. 9/04-8/06. Total award \$599,998.
First year \$299,999.

PATENTS:

Kamen, B.A. and Zebala, J.A. Therapeutic compositions and methods employing aminopterin. U.S. Patent Pending.

Kamen, B. A. Treatment of antifolate neurotoxicity. U.S. Patent Pending.

PUBLICATIONS:

Rothenberg SP, Frances G, and Kamen BA: Antibodies against folic acid-- I. *In vitro* biophysical effect. *J Lab Clin Med* 74:622-671, 1969.

DaCosta M, Rothenberg SP, and Kamen BA: DNA synthesis in chronic granulocytic leukemic cells containing unsaturated folate binder. *Blood* 39, 621-627, 1972.

Kamen BA, and Caston JD: Direct radiochemical assay for serum folate: competition between ^3H -folic acid and 5-methyltetrahydrofolic acid for a folate binder. *J Lab Clin Med* 83:164-174, 1974.

Kamen BA and Caston JD: Identification of a folate binder in hog kidney. *J Biol Chem* 250:2203-2205, 1975.

Kamen BA, Takach PL, Vatev R, and Caston JD: A rapid, radiochemical assay for methotrexate. *Anal Biochem* 70:54-63, 1976.

Kamen BA and Caston JD: Purification of a folate binding factor in normal human umbilical cord serum. *Proc Nat Acad Sci* 72:4261-4264, 1975.

Kamen BA and Caston JD: Comments of radiochemical folate assay. *Clin Chem* 22:1409-1410, 1976.

Kamen BA, Summer CP, and Pearson HA: Exchange transfusion as a treatment for hyperleukocytosis, anemia and metabolic abnormalities in a patient with leukemia. *J Pediatr* 96:1043-1044, 1980.

Gross S, Kamen BA, Fanaroff A, and Caston JD: Folate compartmentation during developmental maturation. *J Pediatr* 96:842-844, 1980.

Kamen BA, Cashmore AR, Hsieh P, Dreyer RN, Moroson BA and Bertino JR: Transport of methotrexate in a sensitive and resistant cell line: effect of ^3H -methotrexate impurities. *J Biol Chem* 255:3254-3257, 1980.

Kamen BA, Nylen PA, Camitta BM, and Bertino JR: Methotrexate accumulation in cells as a possible mechanism of chronic toxicity to the drug. *Br J Haematol* 49:355, 1981.

Krakower GA, Nylen PA, and Kamen BA: Identification and separation of sub-picomole amounts of methotrexate polyglutamates in animal and human biopsy material. *Anal Biochem* 122:412-416, 1982.

Ohnoshi T, Ohnuma T, Takahashi I, Scanlon K, Kamen BA, Holland JF: Establishment of methotrexate-resistant human acute lymphoblastic leukemia cells in culture and effects of folate antagonists. *Cancer Res* 42:1655-1660, 1982.

Viotti TJ, Steuber CP, Kim TH, Holcenberg J, Kamen B, Murray E, and Capiello V: Mitoxantrone in children with advanced malignant disease: a phase I study. In, *New Anticancer Drugs*. Raven Press, New York, NY, 1982.

Kamen BA, Holcenberg JS, Siegel SA: Treatment of CNS leukemia with AZQ. *Cancer Treatment Report* 66:2105-2106, 1982.

Kamen BA, Whyte-Bauer W and Bertino JR: A mechanism of resistance to Methotrexate. NADPH but not NADH stimulation of methotrexate binding to dihydrofolate reductase. *Biochemical Pharmacology* 32:1837-1841, 1983.

Harb JM, Werlin SL, Camitta BM, Oehler H, Kamen BA, Blank EL: Hepatic ultrastructure in leukemic children treated with methotrexate and 6-mercaptopurine. *Amer J Pediatr Hematol/Oncol* 5:323-331, 1983.

Krakower GA and Kamen BA: Comments on pharmacokinetics of erythrocyte and plasma MTX. *Cancer Chemother and Pharmacol* 10:230, 1983.

Krakower GR, Kamen BA: In situ methotrexate polyglutamate formation in rat tissues. *J Pharm Exp Ther* 227:633, 1983.

Kamen BA, Eibl B, Cashmore A, Bertino JR: Uptake and efficacy of trimetrexate (TMQ, 2,4, diamino-5 methyl-6-[3,4,5-trimethoxynilinomethyl quinazoline) a non-classical antifolate in MTX resistant leukemia cells in vitro. *Biochem Pharmacol* 33:1697-1699, 1984.

Kamen BA, Holcenberg JS, Turo K, Whitehead VM: Methotrexate and folate content of erythrocytes in patients receiving oral vs intramuscular therapy with methotrexate. *J Pediatr* 104:130-133, 1984.

Krakower GR, Kamen BA: The reticulocytic rat: A model for the in situ analysis of methotrexate polyglutamate dynamics. *J Pharm Exp Ther* 231:43-47, 1984.

Kun LE, Camitta BM, Mulhern RK, Lauer SJ, Kline RW, Casper JT, Kamen BA, Kaplan BM, Barber SW: Treatment of meningeal relapse in childhood acute lymphoblastic leukemia: I. Results of craniospinal irradiation. *J Clin Oncol* 2:359-364, 1984.

Kamen BA, Holcenberg JS, Moulder JE, Ring BJ, Adams SE, Fish BL: Methotrexate accumulation in rat brain is independent of irradiation and drug schedule. *Cancer Res*, 44:5092-5094, 1984.

Ohnuma T, Lo RJ, Scanlon K, Kamen BA, Ohnoshi T, Wolman SR, Holland JF: Evolution of methotrexate resistance of human acute lymphoblastic leukemia cells in vitro. *Cancer Res* 45:1815-1822, 1985.

Civin CI, Krischer J, Land VJ, Nitschke R, Kamen B, Vats T: Pediatric Oncology Group Phase II trial of AMSA in children with solid tumors. *Cancer Treat Report* 69:335-336, 1985.

Ungerleider RS, Pratt CB, Vietti TJ, Holcenberg JS, Kamen BA, Glaubiger DL, Cohen LF: Phase I trial of mitoxantrone in children. *Cancer Treat Rep* 69:403-407, 1985.

Kamen BA, Nylen PA, Whitehead VM, Abelson HT, Dolnick BJ, Peterson DW: Lack of dihydrofolate reductase in human tumor and leukemia cells in vivo. *Cancer Drug Delivery* 2:133-138, 1985.

Kamen BA, Gunther N, Sowinski N, Rizzo J, Marsik F: Analysis of antibiotic stability in a parenteral nutrition solution. *J Infec Dis* 4:387-389, 1985.

Zimm S, Ettinger L, Holcenberg J, Kamen BA, Vietti TJ, Belasco J, Shutta N, Balis F, Lavi LL, Collins JM, Poplack DG: Phase I and clinical pharmacologic study of mercaptourine administered as a prolonged intravenous infusion. *Cancer Res* 45:1869-1873, 1985.

Kamen BA, Gunther N: Daily unit dosing of antibiotics with a programmable, automated syringe pump. *Am J Hosp Pharm* 42:2715-2716, 1985.

Winick NJ, Krakower G, Kamen BA: Metabolism of MTX to polyglutamyl derivatives and relationship to folate pools in vivo. Proceedings of Second Workshop on Folyl and Anti-Folyl Polyglutamates. Ed. Goldman ID, Praeger Publ. N.Y. pp 297-307, 1985.

Kamen BA and Caston JD: Properties of a folate binding protein (FBP) isolated from porcine kidney. *Biochemical Pharmacol* 35:2323-2329, 1986.

Kamen BA, Capdevilla A: Receptor-mediated folate accumulation is regulated by the cellular folate content. *Proc Natl Acad Sci USA*, 83:5983-5987, 1986.

Kamen BA, Casper J, Lauer S, Camitta BM, Holcenberg J: Treatment of refractory acute lymphoblastic leukemia with VM-26 and cytosine arabinoside. *Cancer Treat Rep* 70:935-936, 1986.

Kremer JN, Galivan J, Streckfuss A, Kamen BA: Methotrexate metabolism in blood and liver in rheumatoid arthritis: association with hepatic folate deficiency and formation of polyglutamates. *Arth Rheum* 29:832-835, 1986.

Moulder JE, Holcenberg JS, Kamen BA, Cheng M, Fish BL: Renal irradiation and the pharmacology and toxicity of methotrexate and cisplatin. *Int J Radiat Oncol Biol Phys* 12:1415-1418, 1986.

Pratt CB, Kamen BA, Winick N, Sartain P, Champion JE, Ragab AH, Goren MP: Phase I study of iproplatin in pediatric patients: A Pediatric Oncology Group Study. *Cancer Treat Rep* 71:87-88, 1987.

Holcenberg JS, Tutsch KD, Earhart RH, Ungerleider RS, Kamen BA, Pratt CB, Gribble TJ, Glaubiger DL: Phase I study of ICRF 187 in pediatric cancer patients and comparison of its pharmacokinetics in children and adults. *Cancer Treat Rep* 70:703-709, 1986.

Kinney TR, Kirscher JP, Starling KA, Kamen BA: Pediatric Oncology Group Phase II trial of MGBG in children with leukemia and lymphoma. *Cancer Treat Rep* 70:1041-1042, 1986.

Goren MP, Forastiere AA, Wright RK, Horowitz MC, Dodge RK, Kamen BA, Pratt CB: Carboplatin (CBDCA), Iproplatin (CHIP) and high dose cisplatin in hypertonic salt evaluated for tubular nephrotoxicity. *Cancer Chemother Pharmacol* 19:57-60, 1987.

Winick N, Kamen B, Lester C, Balis F, Poplack D, Holcenberg J: Folate and methotrexate polyglutamate tissue levels in monkeys following low dose methotrexate. *Cancer Drug Delivery* 4:25-31, 1987.

Holcenberg JS, Moulder JE, Kamen BA, Krailo MD, Fish BL, Ring BJ, Adams S: Chronic effects of fractionated renal irradiation on the pharmacokinetics of intravenous methotrexate. *Int J Radiat Oncol Biol Phys* 13:759-764, 1987.

Winick NJ, Kamen BA, Streckfuss A, Craig J, McGuirt F, Capizzi RL, Sklar F, Coln D: Methotrexate (MTX) concentration in tumors following low dose MTX. *Cancer Chemotherapy & Pharmacology* 20:78-80, 1987.

Whitehead VM, Kamen BA, Beaulieu D: Levels of dihydrofolate reductase in livers. *Cancer Drug Delivery* 4:185-189, 1987.

Kamen BA, Winick NJ: High dose methotrexate: insecure rationale? *Biochem Pharmacol* 37:2713-2715, 1988.

Kamen BA, Wang MT, Streckfuss AJ, Peryea X, Anderson RGW: Delivery of folates to the cytoplasm of MA104 cells is mediated by a surface membrane receptor that recycles. *J Biol Chem* 263:13602-13609, 1988.

Lacey SW, Sanders JM, Rothberg KG, Anderson RGW, Kamen BA: Complementary DNA for the folate binding protein correctly predicts anchoring to the membrane by glycosyl-phosphatidylinositol. *J Clin Invest* 84:715-720, 1989.

Furman WL, Pratt CB, Rivera GK, Kirscher JP, Kamen BA, Vietti TK: Mortality in pediatric phase I clinical trials. *J Nat'l Canc Inst* 81:1193-1194, 1989.

Kamen BA, Wang M-T, Johnson C, and Anderson RGW: Regulation of the cytoplasmic accumulation of 5-Methyltetrahydrofolate in MA104 cells is independent of folate receptor regulation. *J Clin Invest* 84:1379-1386, 1989.

Arkin H, Ohnuma T, Kamen B, Holland J: Multidrug resistance in human leukemic cell line selected for resistance to trimetrexate. *Cancer Res* 49:6556-6561, 1989.

Kamen BA and Vietti T: Oral Leucovorin increases CSF folate concentration in children with leukemia. *British J Cancer* 60:799, 1989.

Camitta B, Leventhal B, Lauer S, Shuster JJ, Adair S, Casper J, Civin C, Graham M, Mahoney D, Kiefer G, Kamen B: Intermediate dose intravenous methotrexate and 6-mercaptopurine therapy for non-T, non-B acute lymphocytic leukemia of childhood: A Pediatric Oncology Group pilot study. *J Clin Oncol* 7:1539-1544, 1989.

Gratton MA, Salvi RJ, Kamen BA, and Saunders SS: Interaction of cisplatin and noise on the peripheral auditory system. *Hearing Res* 50:211-224, 1990.

Rothberg KG, Ying Y, Kolhouse JF, Kamen BA, Anderson RGW: The glycoprophospholipid linked folate receptor recycles without entering the clathrin coated pit endocytic pathway. *J Cell Biology* 110:637-649, 1990.

Weitman S and Kamen BA: Methotrexate resistance; role of pyridine co-factors. *Cancer Therapy and Control* 1:251-257, 1990.

Kamen BA: Trimetrexate therapy for *Pneumocystis carinii*. *Ped Infec Dis* 9:215, 1990.

Pappo A, Vietti T, Whitehead VM, Ragab A, and Kamen B: A phase II trial of trimetrexate in the treatment of relapsed childhood leukemia. *J Natl Cancer Inst* 82:1641-1642, 1990.

Winick N, Bowman WP, and Kamen BA: Prolonged intensive oral methotrexate does not induce its own malabsorption. *Cancer Therapy and Control* 1:245-250, 1990.

Gratton MA and Kamen BA: Potentiation of Cisplatin Ototoxicity by Noise. *J Clin Oncology* 8:2091-2092, 1990.

Rothberg KG, Ying Y-S, Kamen BA, and Anderson RGW: Cholesterol controls the clustering of the glycoprophospholipid-anchored membrane receptor for 5-methyltetrahydrofolate. *J Cell Biology* 111:2931-2938, 1990.

Castleberry RP, Ragab AH, Steuber CP, Kamen BA, et al: Aziridinylbenzoquinone (AZQ) in the treatment of recurrent pediatric brain and other malignant solid tumors. A Pediatric Oncology Group Phase II Study. *Investigational New Drugs* 4:401-406, 1990

Vats T, Kamen B, and Krischer J: Phase II trial of ICRF-187 in children with solid tumors and acute leukemia. *Investigational New Drugs*, 1990.

Adamson PC, Zimm S, Ragab AH, Steinberg S, Balis F, Kamen BA, Vietti TJ, et al: A phase II trial of continuous-infusion 6-mercaptopurine for childhood solid tumors. *Cancer Chemother Pharmacol* 26:343-344, 1990.

Jonsson O and Kamen BA: Methotrexate and leukemia. *Cancer Invest* 9:53-60, 1991.

Weitman SD, Kato GJ, Barbosa JL, and Kamen BA: Low dose methotrexate therapy for hepatoblastoma. *Cancer Chemotherapy and Pharmacology* 28:233-234, 1991.

Kamen BA, Angela Smith, and Anderson RGW: The folate receptor works in tandem with a probenecid-sensitive anion carrier. *J Clin Invest* 87: 1442-1449, 1991.

Kamen BA: Why more 6-Mercaptopurine? *Seminars in Hematology* 28:12-14, 1991.

Weitman SD and Kamen BA: Fosfomycin - Friend or Foe?: Pediatric Hematology-Oncology, 8:7-8, 1991.

Coney LR, Tomassetti A, Carayannopoulos L, Frasca V, Kamen BA, Colnaghi M and Zurawski VR: Cloning of a tumor-associated antigen: MOV 18 and MOV 19 antibodies recognize a folate binding protein. Cancer Research 51:6125-6132, 1991.

Bowcock AM, Lacey S, Mohandas TK, Kamen B, and Taggart RT: The folate receptor maps to chromosome 11. Human Gene Mapping, August 1991.

Weitman SD, Buchanan GR, and Kamen BA: Pulmonary toxicity of deferoxamine in children with advanced cancer. J Nat'l Cancer Institute, 83:1834-1835, 1991.

Willis SA, Lacey SW, Weitman SD, Kamen BA, and Nisen PD: Folate receptor gene expression is tissue-specific and temporally-regulated. Cancer Therapy and Control 2: 223-230, 1992.

Winick NJ, Bowman WP, Kamen BA, Roach ES, Rollins N, Jacaruso D, and Buchanan GR: Unexpected acute neurologic toxicity in children with acute lymphoblastic leukemia receiving intensive oral methotrexate. J Natl Cancer Institute 84:252-256, 1992.

Anderson RGW, Kamen BA, Rothberg KG, and Lacy SW: Potocytosis: Sequestration and transport of small molecules by caveolae. Science 255:410-411, 1992.

Adamson PC, Zimm S, Ragab AH, Steinberg SM, Balis F, Kamen BA, Vietti TJ, Gillespie A, and Poplack DG. A phase II trial of continuous infusion 6-mercaptopurine for childhood leukemia. Cancer Chemotherapy and Pharmacology 30:155-157, 1992.

Weitman SD, Lark R, Coney LR, Fort DW, Frasca V, Zurawski VR, Kamen BA: Distribution of the folate receptor GP38 in normal and malignant cell lines and tissues. Cancer Research 52:3396-3401, 1992.

Matsue H, Rothberg KG, Takashima A, Kamen BA, Anderson RGW, Lacy SW: Potocytosis of folate selects cells for growth in physiologic concentrations of the vitamin. Proc Nat Acad Sci 89:6006-6009, 1992.

Chang WJ, Rothberg KG, Kamen BA, and Anderson RWG. Lowering the cholesterol content of MA104 cells inhibits receptor mediated transport of folate. J Cell Biol 118:63-69, 1992.

Weitman SD, Weinberg AG, Coney LR, Zurawski VR, Jennings D, and Kamen BA. Cellular localization of the folate receptor: potential role in drug toxicity and folate homeostasis. *Cancer Research* 52:6708-6711, 1992.

Graham ML, Shuster JJ, Kamen BA, Cheo DL, Harrison MP, Leventhal BG, Pullen DJ and Whitehead VM. Red blood cell methotrexate and folate levels in children with acute lymphoblastic leukemia undergoing therapy: a Pediatric Oncology Group pilot study. *Cancer Chemother Pharmacol* 31:217-222, 1992.

Pizzorno G, Cashmore AR, Moroson BA, Cross AD, Smith AK, Cason M, Kamen BA, and Beardsley. 5,10-Dideazatetrahydrofolic acid (DDATHF) transport in CCRF-CEM and MA104 cell lines. *J Biol Chem*. 268:1017-1023, 1993.

Graham M, Winick NJ, Camitta BM, and Kamen BA: Equivalence of methotrexate concentration in erythrocytes between IV and oral dosing regimens. *Cancer Research Therapy and Control* 3:53-56, 1993.

Winick N, McKenna RW, Shuster JJ, Schneider NR, Borowitz MJ, Bowman WP, Jacaruso D, Kamen BA and Buchanan GR: Secondary Acute Myeloid Leukemia in Children with Acute Lymphoblastic Leukemia treated with Etoposide. *J Clin Onc* 11:209-217, 1993.

Zwiener RJ, Johnson CA, Anderson RGW, and Kamen BA: Purified folate receptor-5-methyltetrahydrofolic acid interaction at neutral and acid pH. *Cancer Research Therapy and Control* 3:37-42, 1993.

Fort DW and Kamen BA: Familial Erythrophagocytic Lymphohistiocytosis: Long-term survival in a patient treated with VP-16. *Cancer Research, Therapy and Control* 3:167, 1993.

Fort DL, Lark RH, Smith AK, Marling-Cason M, Weitman SD, Shane B and Kamen BA: Accumulation of 5-Methyltetrahydrofolic acid and Folylpolyglutamate Expression in Mitogen Stimulated Human Lymphocytes. *Brit J Haem* 84:595-601, 1993.

Lauer SJ, Camitta B, Leventhal B, Mahoney D, Shuster JJ, Adair S, Casper J, Civin C, Graham M, Kiefer G, Pullen J, Steuber P, and Kamen B. Intensive alternating drug pairs for treatment of high risk childhood acute lymphoblastic leukemia: A pediatric oncology group pilot study. *Cancer* 71:2854-2861, 1993.

Weitman SD, Glatstein E and Kamen BA: Back to the Basics: The importance of concentration x time in oncology. *J Clin Onc* 11:820-821, 1993.

Pappo AS, Vats T, Williams TE, Bernstein M and Kamen BA: Phase I trial of trimetrexate in pediatric solid tumors: A Pediatric Oncology Group Study. *Med Ped Oncol* 21:280-282, 1993.

Lark RH, Smith AK and Kamen BA: Should patients receiving anti-folates be treated with folic acid first? A rationale based upon studies of folylpolyglutamate synthetase. *Cancer Research Therapy and Control* 4:11-16, 1994.

Smart EJ, Foster DL, Ying Y-S, Kamen BA and Anderson RGW: Activators of protein kinase c inhibit receptor-mediated potocytosis by preventing internalization of caveolae. *J Cell Biology* 124:307-314, 1994.

Weitman SD, Frazier K and Kamen BA: The folate receptor in central nervous system malignancies of childhood. *Journal of Neuro-Oncology* 21:107-112, 1994.

Orr RB and Kamen BA. UMSCC38 cells amplified at 11q13 for the folate receptor synthesize nonfunctional folate receptor antigen. *Cancer Research* 54:3905-3911, 1994.

Kamen BA and Weitman SD: Annotation: High Dose Methotrexate? *Pediatric Hematology and Oncology* 11:125-127, 1994.

Weitman SD, Ducore JM, Fort DW, Munoz LL, Rollins NK and Kamen BA. Safety of Low Dose Oral Methotrexate and Irradiation for Treatment of Children with Brain Tumors. *Cancer Research Therapy and Control* 4:25-29, 1994.

Li N, Rosenblatt DS, Kamen BA, Seetharam S and Seetharam B: Identification of two mutant alleles of transcobalamin II in an affected family. *Human Molecular Genetics* 3:1835-1840, 1994.

Schifeling DJ, George T, McGuirt F, Capizzi RL, and Kamen BA: Methotrexate (MTX) content in squamous cell carcinoma of the head and neck (SCCHN) after low dose MTX. *Med Ped Oncology* 22:88-90, 1994.

Camitta B, Mahoney D, Leventhal B, Lauer SJ, Shuster JJ, Adair S, Civin C, Munoz L, Steuber P, Strother D and Kamen B: Intensive intravenous methotrexate and mercaptopurine treatment of higher risk non-T, non-B acute lymphoblastic leukemia: A pediatric oncology group study. *J Clinical Oncology* 12:1383-1389, 1994.

Weitman SD and Kamen BA: Combination chemotherapy: a case of new math? when an addition is a subtraction. *Cancer Research Therapy and Control* 4:1-2, 1994.

Schlichtemeier T, Tomlinson GE, Kamen BA and Wilson GN: Cerebral hemorrhage in Cohen syndrome. *Clin Genet* 45:212-216, 1994.

Orr R and Kamen BA: Mutant folate receptors exhibit a dominant negative effect when transfected into cells with wt receptor. *Cancer Research* 55:847-852, 1995.

Kamen BA, Frenkel EP and Colvin OM: Ifosfamide: Isn't the honeymoon over yet? *J Clinical Oncology* 13:307-309, 1995.

Bernini JCB, Fort DW, Griener JC, Kane BJ, Chappell WB and Kamen BA: Aminophylline for methotrexate-induced neurotoxicity. *Lancet* 345:544-547, 1995.

Orr R, Kreisler AR and Kamen BA: Similarity of Folate Receptor Expression in UMSCC 38 Cells to Squamous Cell Carcinoma Differentiation Markers. *J Natl Can Inst* 87:299-303, 1995.

Kulkarni PV, Antich PP, Constantinescu A, Prior J, Nguyen T, Fernando J, Anderson JA, Weitman SD, Kamen BA, Parkey RW, Chaney RC and Fenyves EJ: Folate receptor imaging with ^{125}I labeled folic acid with a whole body small animal imaging device built with plastic scintillating optical fibers. *Nuclear Instruments and Methods in Physics Research B* 99 800-803, 1995.

Hum M and Kamen BA: Successful carboxypeptidase G₂ rescue in delayed MTX-elimination due to renal failure: *Pediatric Hematology and Oncology* 12:521-524, 1995.

Mahoney DH, Camitta B, Leventhal B, Shuster JJ, Civin C, Ganick D, Steuber CP and Kamen BA: Repetitive low dose oral methotrexate and intravenous mercaptopurine treatment of B-lineage acute lymphoblastic leukemia: a pediatric oncology group pilot study. *Cancer* 75:2623-2631, 1995.

Rosenthal DI, Close LG, Lucci J, Schold SC, Truelson J, Fathallah-Shaykh H, Kamen BA, Vuitch FM, Gazdar AF, Griener J, Landay M, Mendelsohn D, Tourville J, Rogers P, Orr K, Mcwhorter J and Carbone DP: Phase I studies of continuous infusion paclitaxel given with standard aggressive radiation therapy for locally advanced solid tumors. *Seminars in Oncology* 22:13-17, 1995.

Smith AS, Hum M, Winick NJ and Kamen BA: A case for the use of aminopterin in treatment of patients with leukemia based upon metabolic studies of blasts *in vitro*. *Clinical Cancer Research* 2:69-73, 1996.

Graham ML, Shuster JJ, Kamen BA, Land VJ, Borowitz MJ, Camitta B, Cheo DL, Harrison MP, Leventhal BG, Pinkel DP, Pullen J, Steuber P and Whitehead MV: Changes in red cell methotrexate pharmacology and their impact on outcome when cytarabine is infused with methotrexate in the treatment of acute lymphoblastic leukemia in children, a pediatric oncology study. *Clinical Cancer Research* 2:331-337, 1996.

Lark RH, Smith AS and Kamen BA: Folylpolyglutamate Synthetase but not folate receptor correlates with MA104 cell growth *in vitro*. *Cancer Research Therapy and Control* 5:1-10 1996.

Winick N, Shuster JJ, Bowman WP, Borowitz M, Farrow A, Jacaruso D, Buchanan GR and Kamen BA: Intensive oral methotrexate protects against lymphoid marrow relapse in childhood B-precursor acute lymphoblastic leukemia. *J Clinical Oncology* 14:2803-2811, 1996.

Quinn CT and Kamen BA: A biochemical perspective of methotrexate neurotoxicity with insight on non-folate rescue modalities. *Journal of Investigative Medicine* 44:522-530, 1996.

Ratain MJ, Collyar D, Kamen BA, Eisenhauer E, Lawrence TS, Runowicz C, Turner S and Wade JL: Critical role of phase I clinical trials in cancer treatment. *J Clin Onc* 15:853-859, 1997.

Quinn CT, Hum M, Farrow A, Griener JC, Winick NJ and Kamen BA: Elevation of homocysteine and excitatory amino acid neurotransmitters in the CSF of children who receive methotrexate for the treatment of cancer. *J Clin Onc* 15:2800-2806, 1997.

Rosenthal DI, Okani O, Corak J, Kavanaugh D, Kamen B, Vuitch FM, Gazdar AF, Greiner J, Frenkel EF and Carbone DP: Seven week continuous-infusion paclitaxel plus concurrent radiation therapy for locally advanced non-small cell lung cancer: A phase I study. *Seminars in Oncology* 24:S12-96-100, 1997.

Hum M, Smith A, Lark R, Winick N and Kamen BA: Evidence for negative feedback of extracellular methotrexate (MTX) on ALL blasts *in vitro*. *Pharmacotherapy* 17:1260-1266, 1997.

Bleyer WA, Nelson JA and Kamen BA: Accumulation of methotrexate in systemic tissues after intrathecal administration. *J Pediatric Hematology Oncology* 19:30-32, 1997.

Rosenthal DI, Sinard RJ, OkaniO, Corak J, Kavanaugh D, Kamen B, Vuitch FM, Gazdar A, Griener J, Frenkel EP and Carbone DP: Seven-week continuous-infusion paclitaxel with concurrent radiotherapy for locally advanced head and neck squamous cell cancer: a phase I study. *Seminars in Oncology* 24:S19 67-71, 1997.

Carlson L, Griener J, Quigley R, Goren M, Tkaczewski I, Kamen B and Weitman S: Ifosfamide treatment and hemodialysis with pharmacokinetic evaluation in an anephric pediatric patient. *Cancer Chemother and Pharmacol* 41:140-146, 1998.

Whitehead VM, Vuchich M-J, Carroll AJ, Lauer SJ, Mahoney D, Shuster JJ, Payment C, Bernstein ML, Akabutu JJ, Bowen T, Kamen BA, Ravindranath Y, Emami A, Beardsley GP, Pullen J and Camitta B: Translocations involving chromosome 12p11-13, methotrexate metabolism and outcome in childhood B-lineage acute lymphoblastic leukemia. *Clinical Cancer Research* 4:183-188, 1998.

Quinn CT, Griener JC, Bottiglieri T and Kamen, BA: Homocysteine and sulfur-containing excitatory amino acid neurotransmitters: A link to methotrexate-associated neurotoxicity. *J Clin Onc*: 16:393-394, 1998.

Lewis CM, Smith AK, Nguyen C and Kamen BA: PMA alters folate receptor distribution in the plasma membrane and increases the rate of 5-methyltetrahydrofolate delivery in mature MA104 cells. *Biochimica et Biophysica Acta* 1401:157-169, 1998.

Ratliff AF, Wilson J, Hum M, Marling-Cason M, Rose K, Winick N and Kamen BA: A phase I and pharmacokinetic trial of aminopterin in patients with refractory malignancies. *J Clin Onc*: 16:1458-1464, 1998.

Lauer S, Camitta BM, Leventhal BG, Mahoney D, Shuster JJ, Kiefer G, Pullen J, Steuber CP, Carroll AJ and Kamen BA: Intensive alternating drug pairs for treatment of infant acute lymphoblastic leukemia. *J Pediatric Hematology/Oncology* 20:229-233, 1998.

Lewis CM, Smith AK and Kamen BA: Cytochalasin D induced F-actin disruption increases receptor mediated folate delivery. *Cancer Research* 58:2592-2596, 1998.

Whitehead VM, Vuchich M-J, Carroll AJ, Lauer SJ, Mahoney DH, Shuster JJ, Payment C, Koch PA, Akabutu JJ, Bowen T, Kamen BA, Ravindranath Y, Emami A, Look AT, Beardsley GP, Pullen DJ and Camitta B: Accumulation of methotrexate polyglutamates, ploidy and trisomies of both chromosomes 4 and 10 in lymphoblasts from children with B-progenitor cell acute lymphoblastic leukemia: A Pediatric Oncology Group Study. *Leukemia and Lymphoma* 31:507-519, 1998.

Hum M, Holcenberg JS, Tkaczewski I, Weaver J, Wilson J, and Kamen BA: High dose trimetrexate and minimal dose leucovorin: a case of selective protection. *Clinical Cancer Research* 4:2981-2984, 1998.

Quinn CT and Kamen BA: Choroid plexus carcinoma complicating a case of acute lymphoblastic leukemia. *Pediatric Hematology and Oncology* 16:75-77, 1999.

Aquino VM, Fort DW and Kamen BA: Carboplatin for the treatment of children with newly diagnosed optic chiasm gliomas: a phase II study J Neuro Onc 41:255-259, 1999.

Rodriguez-Cortes HM, Griener JC, Hyland K, Bottiglieri T, Bennett MJ, Kamen BA and Buchanan GR: Plasma homocysteine levels and folate status in children with sickle cell anemia. J Pediatr Hematol Oncol 21:219-223, 1999.

Farah R and Kamen BA: Parameningeal alveolar rhabdomyosarcoma with an isolated pancreatic metastasis. Pediatric Hematology and Oncology 16:463-468, 1999.

Mantadakis E, Smith AK, Quigley R, Ratliff AF, Rogers ZR and Kamen BA: Delayed methotrexate (MTX) clearance in a patient with sickle cell anemia and osteosarcoma: a case report. J Pediatr Hematol Oncol 21:165-169, 1999.

Piedrahita JA, Oetama B, Bemmett GD, van Waes J, Lacey SW, Kamen BA, Richardson J, Lark RH, and Finnell RH: Inactivation of the folate binding protein genes disrupts neural tube closure. Nature Genetics 23:228-232, 1999.

Mantadakis E, Smith AK and Kamen BA: The ratio of antifolate to folate uptake but not antifolate uptake alone correlates with treatment outcome in children with B-lineage acute lymphoblastic leukemia. J Pediatr Hematol Oncol 22:221-226, 2000.

Woo MH, Shuster JJ, Chen CI, Bash RJ, Behm FG, Camitta B, Felix C, Kamen BA, Pui C-H, Raimondi SC, Winick NJ, Amylon MD and Relling MV: Glutathione S-Transferase genotypes in children who develop treatment-related acute myeloid leukemia. Leukemia 14:232-237, 2000.

Mantadakis E, Herrera L, Leavey PJ, Bash RO, Winick NJ and Kamen BA: Fractionated cyclophosphamide and etoposide for children with advanced or refractory solid tumors: A phase II window study. J Clin Oncol 18:2576-2581, 2000.

Magill, E, Smith AK and Kamen BA: Effect of food supplementation and education on folate stores. J Pediatric Hematology & Oncology 17:605-606, 2000.

Cole PD, Gorlick R, Banerjee D, Tong WP, Smith A , Kamen BA, Bertino JR: Effects of over-expression of gamma-glutamyl hydrolase on methotrexate metabolism and resistance. Cancer Research 61:4599-4604, 2001.

Drachtman R, Cole PD, Golden CB, James SJ, Melnyk S, Smith AK, Asiner J, Kamen BA: Dextromethorphan is effective in the treatment of subacute methotrexate toxicity. *Ped Hem Onc* 19:319-327, 2002.

Mantadakis E, Smith AK, Hyman L, Winick NJ and Kamen BA: Methotrexate polyglutamation may lack prognostic significance in children with B-lineage acute lymphoblastic leukemia treated with intensive oral methotrexate with minimal leucovorin rescue. *J Ped Hem Oncol* 24:636-642, 2002.

Cole PD, Smith AK, Kamen BA: Nucleoside Salvage Contributes to Methotrexate Resistance in Osteosarcoma Cell Lines, but Confers Collateral Sensitivity to Nucleoside Analogs. *Cancer Chemother and Pharmacol* 50:111-116, 2002.

Kerbel RS, Klement G, Pritchard KI and Kamen B. Continuous Low Dose Anti-Angiogenic/Metronomic Chemotherapy: From the Research Laboratory into the Oncology Clinic. *Annals of Oncology* 13:12-15, 2002.

Bostrom BC, Erdmann GR and Kamen BA: Systemic Methotrexate Exposure Is Greater After Intrathecal vs. Oral Administration. *J Ped Hem Oncol* 25:114-117, 2003.

Winter-Vann AM, Kamen BA, Bergo MO, Young SG, Melnyk S, James SJ and Casey PJ: Targeting Ras signaling through inhibition of carboxyl methylation: An unexpected property of methotrexate. *Proc Nat Acad Sci* 100:6529-6534, 2003.

Frost P and Kamen BA: The Bullseye of cancer therapy: a moving target. *Current Opinions in Pharmacology* 3:335-337, 2003.

DiPaola R, Durivage H and Kamen BA: High Time for Low Dose Prospective Clinical Trials. *Cancer* 98:1559-1561, 2003.

Cole, PD and Kamen BA: "Beriberi" interesting! *J Pediatr Hematol Oncol* 25:924-6, 2003.

Kaufman Y, Drori S, Cole PD, Kamen BA, Sirota J, Ifergan I, Weyl Ben Arush M, Elhasid R, Sahar D, Kaspers GJL, Jansen G, Matherly LH, Rechavi G, Toren A, Assaraf YG: Reduced folate carrier mutations are not the mechanism underlying methotrexate resistance in childhood acute lymphoblastic leukemia. *Cancer* 100: 773-782, 2004.

Cole PD, Smith AK, Middelstadt B and Kamen BA: Aminopterin is not just another methotrexate: Differences in metabolism may account for increased potency and utility as an antifolate. *Cancer Chemotherapy and Pharmacology*, In review.

Kamen BA, Smith AK: A review of folate receptor alpha cycling and 5-methyltetra-hydrofolate accumulation with an emphasis on cell models in vitro. *Adv Drug Deliv Rev.* 56:1085-97. 2004.

Kerbel RS and Kamen BA: The anti-angiogenic basis of metronomic therapy. *Nature Reviews, Cancer* 4:423-437, 2004.

Horton TM, Blaney SM, Langevin AM, Kuhn J, Kamen B, Berg SL, Bernstein M, Weitman S: Phase I trial and pharmacokinetic study of raltitrexed in children with recurrent or refractory leukemia: a pediatric oncology group study. *Clin Cancer Res.* 11:1884-9. 2005.

Mantadakis E, Cole PD, Kamen BA: High-Dose Methotrexate for Children with Acute Lymphoblastic Leukemia: Where is The Evidence for its Continued Use? *Pharmacotherapy*, May 2005.

Cole PD, Drachtman R, Smith AK, Cate S, Larson RA, Winick NJ, Hawkins DS, Holcenberg JS, Kelly K, Kamen BA. Phase II Trial of Oral Aminopterin for Adults and Children with Refractory Acute Leukemia. *Clinical Cancer Research*, In review.

CHAPTERS/REVIEWS/EDITORIALS

Caston JD and Kamen BA: Separation of para-aminobenzoyl (glutamate) binding from folate binders. In, *The VI International Symposium on the Chemistry and Biology of Pteridines*, Kisliuk RL and Brown GM (eds), Elsevier/North Holland, pp. 515-521, 1978.

Kamen BA and Caston JD: Purification of folate-binding factors. In, *Methods in Enzymology*, 66:678-686. Purich DL (ed), Academic Press, New York, New York, 1980.

Kamen BA and Bertino JR: Folate and anti-folate transport in mammalian cells. In, *Antibiotics and Chemotherapy*, Mihich E (ed), vol. 28, pp 62-67, 1980.

Bertino JR, Dolnick BJ, Berenson R, Kamen BA, Sheer DI: Gene amplification in methotrexate resistant cells. In *Cancer Research in the Peoples Republic of China and the United States of America*. Paul Marks Ed. p. 251-260, Grune and Stratton, 1980.

Scheer DI, Srimatkandada S, Kamen BA, Dube S, Bertino JR: Organization of Methotrexate Resistant Mouse L5187YR Dihydrofolate Reductase Gene and Transformation of Human HCT-8 Cells by this Gene. *Modern Trends in Human Leukemia*, 1980.

Bertino JR, Dolnick BJ, Berenson RJ, Scheer RJ, Kamen BA: Cellular Mechanisms of Resistance to Methotrexate, Bristol Symposium, 1980.

Kamen BA, Mahoney MJ and Pearson HA: Megaloblastic Anemias. In: *Hematology of Infancy and Children*. Nathan and Oski (eds), Saunders, 1981.

Kamen BA: Treatment of Megaloblastic Anemia. In, *Current Pediatric Therapy*. Gellis and Kagan (eds), Saunders, 1981.

Bertino JR, Dolnick BJ, Berenson RJ, Scheer DI, Kamen BA: Cellular mechanisms of resistance to MTX. In *Molecular actions and targets for cancer chemotherapeutic agents*. Vol. 2, Sartorelli AC et al (eds) Academic Press, Inc., New York, pp. 385-397, 1981.

Glaubiger D, Von Hoff DD, Holcenberg JS, Kamen B, Pratt C, and Ungerleider RS: The relative tolerance of children and adults to anticancer drugs. *Front Radiat Ther Onc* 16:42-49, 1982.

Abrams RA, Casper J, Kun L, Kamen B, Hansen R, Camitta B, Anderson T: High dose AZQ for patients with refractory CNS neoplasms - a preliminary analysis. In *Proceedings of International Symposium on Autologous Bone Marrow Transplantation*, M.D. Anderson Hospital, Houston, TX, 1985, pp. 227-230.

Kamen BA: Cell membrane transport of methotrexate. Sixth Int Conf on Brain Tumor Research and Therapy, Ashville, NC, 1985.

Kamen BA: Folate and antifolate cell binding and accumulation at physiological folate concentrations. Symposium on Development of Folates and Folic Acid Antagonists in Cancer Chemotherapy, Tarpon Springs, Florida, 1986.

Kamen BA, Capdevila A: Evidence that receptor mediated folate accumulation is regulated by cellular folate. VIII Int Symposium Pteridines and Folic Acid Derivatives, Montreal, Canada, 1986.

Kamen BA, Winick NJ: Analysis of methotrexate polyglutamates *in vivo*. *Methods in Enzymology* 122:339-346, 1986.

Kamen BA: Methotrexate folate and the brain. In *Neurotoxicology*, J Cremmer (ed) 7:209-216, 1986.

Kamen BA: Folate and anti-folate cell binding and accumulation at physiological folate concentrations. NCI Monograph 5:37-41, 1987.

Schilsky R, Yarbro J, Kamen BA: Clinical pharmacology of anti-neoplastic drugs. In *Drug Therapy in Disease*. Eds. Williams RL, Brater C. 1989, pp. 611-646.

Kamen BA: Folic acid antagonists. In *Metabolism of Anti-Cancer Drugs*. Eds. Prough RA & Powis G, Taylor and Francis, Ltd, pp. 141-162, 1987.

Kamen BA: Drugs used in chemotherapy of neoplastic disease. In *Goth's Medical Pharmacology*. Eds: Clark W, Brater C, and Johnson A. CV Mosby Co., St. Louis, pp. 702-715, 1988, 1990.

Kamen BA, Streckfuss AJ, Peryea X, Sanders J, Tong WP and McCormack JJ: Clinical pharmacology of trimetrexate and clinical implications in pediatric patients. Trimetrexate Research Symposium. Vermont Regional Cancer Center University of Vermont, Burlington, VT, 1988.

Kamen BA: Principles of Cancer Management. In *Current Therapy in Pediatrics*. Eichenwald HF and Stroder J (eds) 1989, pp. 433-436.

Weitman S and Kamen BA: Oncology in the Pediatric Intensive Care Unit. In *A Practical Guide to Pediatric Intensive Care*. Levin D and Morris F (eds), Quality Medical Publishing, St. Louis, MO, pp. 396-404, 1990.

Weitman S, Farrington E, Berry D, and Kamen BA: Pharmacokinetics and Monitoring Pharmacotherapy. In *A Practical Guide to Pediatric Intensive Care*. Levin D and Morris F (eds), Quality Medical Publishing, St. Louis, MO. pp. 38-48, 1990.

Buchanan G and Kamen B: Childhood acute leukemia as a prototype of curable cancer. *Texas Medicine* 84:7-8, 1988.

Kamen BA and Kuhl J: Principles of Cancer Management. In *Current Therapy in Pediatrics*. Eichenwald HF and Stroder J (eds). pp 504-514 1993.

Kamen BA, Buchanan GB and Winick NJ: Secondary Malignancies associated with epipodophyllotoxins. Letter, *J Clin Oncol* 11:1625, 1993.

Weitman S, Anderson RGW, and Kamen BA: Folate binding proteins. In *Vitamin receptors: vitamins as ligands in cell communication* K. Dakshinamurti. Cambridge University Press pp 106-136, 1994.

Weitman SD, Winick NJ and Kamen BA: "Above all do no harm:" horizons in pediatric oncology. In *Current opinions in pediatrics* 6:219-223, 1994.

Kamen BA and Meyers PA: Megaloblastic Anemias. In *Blood Diseases of Infancy and Children*. eds Miller DR and Baehner RL, Mosby, St Louis pp 220-240, 1995.

Kamen BA: Pediatric Oncology: An update. *Dallas County Medical Journal* pp 424-428 1995.

Kamen BA, Colvin OM and Frenkel EP: Ifosfamide, a reply. *J Clinical Oncology* 13:1825-1826, 1995.

Weitman SD and Kamen BA: Cancer Chemotherapy in children. In *Principles of Cancer Drug Pharmacology*. eds Schilsky R, Milano G and Ratain M. Marcel Dekker, Inc. NY
pp 375-398, 1996.

Bertino JR and Kamen BA: Chemotherapeutic Agents: Folic Acid Antagonists. In *Cancer Medicine*. eds Holland JF, Frei E, Bast RC, Kufe DW, Morton DL and Weichselbaum RR. Lea and Febiger, Philadelphia and London pp 907-928, 1996.

Farrow A, Hicks B and Kamen BA: Oncology in the Pediatric Intensive Care Unit. In *A Practical Guide to Pediatric Intensive Care*. Levin D and Morris F (eds), Churchill Livingstone, New York pp 498-508, 1997.

Rosenthal DI, Close LG, Lucci J, Schold SC, Truelson J, Fathallah-Shaykh H, Kamen BA, Vuitch FM, Gazdar AF, Griener J, Landay M, Mendelsohn D, Tourville J, Rogers P, Orr K, McWhorter J and Carbone DP: Phase I studies of continuous infusion paclitaxel given with standard aggressive radiation therapy for locally advanced solid tumors. In *Chemotherapy with Paclitaxel and Platinum Compounds: Current Status and Future Directions*. Workshop at Fox Chase Cancer Center.

Hum M and Kamen BA: Anti-fols in pediatric oncology. *Investigational New Drugs* 14:101-111, 1996.

Lindsay CA and Kamen BA: The principles of pharmacokinetics and therapeutic drug monitoring. In *A Practical Guide to Pediatric Intensive Care*. Levin D and Morris F (eds), Churchill Livingstone, New York pp 1662-1671, 1997.

Hum M and Kamen BA: Commentary regarding intrathecal leucovorin for IT MTX overdose. *Journal of Pediatric Hematology/Oncology* 19: 1997.

Hum M and Kamen BA: Aminopterin, Methotrexate, Trimethoprim and Folic Acid. In *The Encyclopedia of Molecular Biology*. Creighton TE (ed). Wiley Press. In press, 1998.

Rosenthal DI, Okani O, Sinard RJ, Truelson JM, Fink KL, Kamen B, Vuitch FM, Griener J, Orr KY, McWhorter J and Carbone DP: Concurrent intensive radiotherapy and prolonged continuous-infusion paclitaxel for locally advanced solid tumors: results of three phase I trials. *Sem Rad Onc Suppl* 42-46, 1997.

Kamen BA: Antifolate Pharmacology. In *Seminars in Oncology* 24, suppl 18:30-39, 1997.

Winick N, Farrow A, Buchanan GR and Kamen BA: Can prophylactic CNS radiotherapy be omitted in high risk childhood acute lymphoblastic leukemia. *J Clinical Oncology* 15:3025-3026, 1997.

Kamen BA, Winick N and Holcenberg J: Oral vs IV MTX: another opinion. *J Clinical Oncology* 16:2283-2284, 1998.

Mantadakis E and Kamen BA: Liposomal daunorubicin and brain tumors. *Pediatric Hematology and Oncology* 16:1-3, 1999.

Kamen BA and Saletsky R: Above all do no harm or make sure the result is worthy of the suffering. *Pediatric Hematology and Oncology* 17:1-3, 2000.

Kamen BA and Drachtman RA: To the heart of the matter. *Pediatric Hematology and Oncology* 17:5-7, 2000.

Drachtman RA and Kamen BA: The use of methotrexate in the treatment of childhood malignancies. In *Methotrexate*. Eds Cronstein BN and Bertino JR. Birkhäuser Verlag, Basel Switzerland. pp 49-63, 2000.

Kamen BA, Cole P and Bertino JR: Chemotherapeutic Agents: Folic Acid Antagonists. In *Cancer Medicine*. eds Holland JF, Frei E, Bast RC, Kufe DW, Morton DL and Weichselbaum RR. Williams and Wilkins. pp 612-625, 2000.

Camitta BM, Lauer S, Mahoney DH, Shuster JJ and Kamen BA: Review of IV MTX, IV6MP in the treatment of children with B-lineage ALL. *J Clin Oncol* In press. 2000.

Winick, NJ, Buchanan GB, Bowman P and Kamen BA: Update on effectiveness of divided dose MTX in the treatment of children with acute lymphoblastic leukemia. *J Clin Oncol*. 2000.

Tanner K, Kamen BA and Werner B: Methotrexate and Trimetrexate in Outline of Oncology Therapeutics eds. Ratain M, Tempero M and Skosey C. G&H SOHO Inc, NJ pp 59-60, 2001.

Kamen BA, Rubin E, Glatstein E, Aisner J. High time chemotherapy or high time for low dose. *J Clin Oncol* 18: 2935-2937, 2000.

Quinn C and Kamen BA. Pearson Syndrome. On line pediatric text book, 2000.

Cole PD, Kamen BA. High-dose methotrexate is lethal to rats. Why give it to children? *Pediatric Hematology & Oncology*, 17:1-5, 2000.

Kamen BA. Review of *The myth of pain* by Valerie Gray Hardcastle. *Quarterly Review of Biology* 76:272-273, 2001.

Kamen BA: Folate Receptor α , a review. Symposium on Folates and Human Development. eds. Massaro E. & Rogers JM. Humana Press, NJ pp 117-135, 2002.

Kamen BA and Cole PD: Folate Antagonists. In *Encyclopedia of Cancer*. ed Bertino JR. Academic Press. San Diego, CA. volume 2 pp 235-241, 2002.

Allen, R and Kamen BA: Megaloblastic anemia. In *Rudolph's Pediatrics*. Eds. Rudolph, Rudolph, Hostetter, Lister & Siegel. McGraw Hill, pp 1529-1530, 2002.

Camitta, BM and Kamen BA: Role of methotrexate in the treatment of acute lymphoblastic leukemia in *Childhood Acute Lymphoblastic Leukemia*, ed. CH Pui. Humana Press, pp 357-364, 2002.

Hait WN, Kamen BA, Rubin E and Goodin S. Cancer Chemotherapy in *Clinical Practice of Hematology and Oncology*. Eds Furie B, Cassileth P, Atkins MB & Mayer RJ. Churchill Livingston, pp 330-361, 2003.

Kamen BA, Cole P and Bertino JR: Chemotherapeutic Agents: Folic Acid Antagonists. In *Cancer Medicine*. eds Holland JF, Frei E, Bast RC, Kufe DW, Morton DL and Weichselbaum RR. Williams and Wilkins. pp 727-738, 2003.

Kamen BA: Solutions for One Generation May Become the Problems of the Next. *J Pediatr Hematol Oncol* 2:79-80, 2004.

Kamen BA: A tribute to and celebration of life. *J Pediatr Hematol Oncol* 26:215-6, 2004.

Kamen BA: High-Dose Methotrexate and Asparaginase for the Treatment of Children with Acute Lymphoblastic Leukemia: Why and How? *J Pediatr Hematol Oncol* 26:333-336, 2004.

Kamen BA: Carpe Diem! *J Pediatr Hematol Oncol* 26:359-360, 2004.

ABSTRACTS

Rothenberg SP, Gizens F, Kamen BA: In vitro and in vivo effects of folate binding antibodies. *Clin Res* 17:341, 1969.

Hines JD, Kamen BA, Caston JD: Abnormal folate binding protein(s) in azotemic patients. *Blood* 42:997, 1973.

Kamen BA, Gross S, Caston JD, et al: Folate compartments during developmental maturation. *Am Soc Pediatr Res*, 1975.

Klein ME, Kowal CD, Kamen BA, Frayer KA, Bertino JR: Am Soc Clin Invest, December, 1978.

Kamen BA, Bertino JR: Non-stoichiometric inhibition of dihydrofolic acid reductase (DHFR). Am Soc of Hematol Meeting, New Orleans, LA, 1978.

Knobf T, D'Onofrio M, Smith K, Kamen BA: Oncology Nursing Society, Spring Meeting, New Orleans, 1979.

Kamen BA, McPhedran P, Laudano E, Pearson HA: Pseudo-folic acid deficiency in hypertransfused patients with beta-thalassemia major. Am Soc Hematol Meeting, Phoenix, AZ, 1979.

Kowal CD, Kamen BA, Brayer KA, Bertino JR: Clin Res 27:419A, 1979.

Kamen BA, Eibl B, Cashmore AR, Whyte WL, Moroson BA, Bertino JR: Efficacy and transport of a new lipid soluble antifol, 2,4-Diamino-5-methyl-6-(3,4,5-trimethoxyanilino) methyl quinazoline (TMQ: JB-11) in methotrexate resistant cells. Am Assoc Cancer Res 22:26, 1981.

Holcenberg JS, Kamen BA, Von Hoff D, Pratt C, Glaubiger D, Ungerleider R: Improved tolerance of children to anticancer drugs. Amer Soc Clin Oncol, 1981.

Kamen BA, Nylen PA, Krakower GR: Submitted to the 13th International Cancer Congress, 1982.

Lo RJ, Ohnuma T, Ohnoshi T, Scanlon K, Kamen BA, Holland JF, Greenspan EM: Evolution of methotrexate (MTX) resistance in a human acute lymphoblastic leukemia cell line. Amer Assoc Cancer Res 23:180, 1982.

Krakower GR, Nylen PA, Kamen BA: Identification of methotrexate polyglutamates in rat tissue following chronic low-dose administration. FASEB 66:262, 1982.

Kamen BA, Nylen PA, Krakower GR: Folate deficiency and methotrexate (MTX) polyglutamate accumulation in children receiving weekly low dose MTX therapy. Am Assoc Cancer Res 23:127, 1982.

Civin CI, Land VJ, Nitscke R, Kamen BA, Vats TS: m-AMSA in pediatric solid tumors. Amer Soc Clin Oncol 1:178, 1982.

Kamen BA, Holcenberg JS, Turo K, Whitehead VM: Variability of red blood cell folate and methotrexate in children with acute lymphocytic leukemia. Am Assoc Cancer Res. 1983.

Kamen BA, Holcenberg JS, Moulder J, Adams SA et al: Organ irradiation and methotrexate pharmacology. Am Soc Ther Radiology, 1983.

Earhart RE, Holcenberg JS, Kamen BA: Am Soc Exptl Pharm, 1983.

Kamen BA, Holcenberg JS, Moulder JE, Kun LE, Adams SM, Fish BL, BJ: Cranial irradiation and methotrexate (MTX) pharmacology. Am Assoc Cancer Res. December 1983.

Nylen PA, Abelson HA, Whitehead MV, Dolnick B, Peterson DW, Kamen BA: Quantitation and lack of dihydrofolate reductase (DHFR) in human tissue in comparison to cultured human and animal cell lines in vitro and in vivo. Am Assoc Cancer Res, 1983.

Kamen BA, Holcenberg JS, Kun LE, Moulder JE: Organ irradiation and methotrexate pharmacology. Radiation Res Soc, 1983.

Zimm S, Ettinger L, Holcenberg J, Kamen B, Vietti T, Balis F, Collins J, Poplack DG: 6-mercaptopurine administered as a prolonged intravenous (VI) infusion: Plasma and CSF pharmacokinetics. ASCO, 1983.

Faletta J, Kamen BA, Ragab A, Starling K: Diaziquone by prolonged infusion. Amer Assoc Cancer Res, 1984.

Abrams R, Polacek L, Casper J, Hansen R, Romain R, Kun L, Kamen B, Ritch P, Menitove J, Anderson T: Hematologically ablative therapy (Rx) supported by autologous hematopoietic reconstitution (AHR) at the Medical College of Wisconsin. Amer Assoc Cancer Res, 1984.

Capdevila A, Kamen B: Binding and substrate specificity of human dihydrofolate reductase (DHFR) purified from hepatoma in vivo. Amer Assoc Cancer Res, 1984.

Steuber C, Land V, Graham M, Williams D, Kamen B, Krischer J, Vietti T: Toxicity evaluation of dihydroxyanthracenedione (DHAD) in combination with cytosine arabinoside (Ara-C). Amer Assoc Cancer Res, 1984.

Kamen B, Winick N, Lester C, Baylis F, Holcenberg J: Decreased folate associated with methotrexate polyglutamate accumulation in chronically treated monkeys. Amer Assoc Cancer Res, 1984.

Arkin H, Ohnuma T, Takemura Y, Kamen BA, Kano Y, Holland JF: Development and characterization of a trimetrexate (TMTX, TMQ, JB-11)-resistant human acute lymphoblastic leukemia cell line. Amer Assoc Cancer Res, 1984.

Holcenberg JS, Moulder JE, Kamen BA, Fish BL: Effect of renal irradiation on the pharmacology of methotrexate (MTX) and cis-diamminedichloroplatinum (cis-Pt). Amer Assoc Cancer Res, 1984.

Moulder JE, Holcenberg JS, Kamen BA, Fish BL: Renal irradiation and the pharmacology and toxicity of methotrexate (MTX) and cis-diamminedichloroplatinum (CIS-PT). Radiation Res, ASTR

Kamen BA, Streckfuss A, Winick NJ, Friedman HS, Bigner DD: Cellular pharmacokinetics of methotrexate in human medulloblastoma (TE671) *in vivo*. 6th Int. Conf. on Brain Tumor Research and Therapy, 1985.

Winick N, Streckfuss A, Kamen BA, Balis F, Lester C, Poplack D: Methotrexate, folate and CNS toxicity. 4th Int Conf on Neurotoxicology of Selected Chemicals, 1985.

Pratt CB, Kamen BA, Winick N, Sartain P, Champion J, Ragab A, Goren M, Wright R: Phase I study of cis-dichloro-trans-dihydroxy-bis (Isopropylamine) platinum IV (CHIP, JM9, NSC-256927) in patients with pediatric malignant solid tumors. Amer Soc Clin Oncol, 1986.

Camitta B, Lauer S, Casper J, Kamen BA, Kun L: Intensive alternating drug pairs for treatment of high-risk children acute lymphocytic leukemia (ALL). ASCO 1986.

Moulder JE, Fish BL, Holcenberg JS, Kamen BA: Effects of renal irradiation of the pharmacology of methotrexate (MTX) and cis-platinum (CIS-PT). Radia Res Soc. 1986.

Kremer JM, Kamen BA, Galivan J: Methotrexate (MTX) metabolism in rheumatoid arthritis (RA). American Rheumatism Assn. 1986.

Galivan J, Kamen BA, Kremer JM: Methotrexate (MTX) metabolism in rheumatoid arthritis (RA). Amer Soc Clin Pharmacol & Therapeutics 1986.

Pratt C, Kamen BA, Winick N, Sartain P, Champion J, Ragab A: Phase I study of cis-dichloro-trans-dihydroxy-bis (Isopropylamine) platinum IV (CHIP, JM9, NSC-256927) in pediatric patients. Amer Soc Clin Oncol 1986.

Kamen BA, Capdevila A: Receptor mediated folate and methotrexate (MTX) transport is regulated by the intracellular folate pool. Amer Assn Can Res 1986.

Winick NJ, Kamen BA, Craig J, McGuirt F, Capizzi RL, Sklar F, Coln D: Methotrexate (MTX) concentration in tumors following low-dose MTX. Amer Assn Can Res 1986.

Wang M, Capdevila A, Kamen BA: Evidence for cycling of a membrane receptor for folate on MA104 cells. Amer Assn Cancer Res 1987.

Yoffe B, Belknap W, Rutledge J, Kamen BA, Bhatt H, Humphries E, Combes B: Multiple Integration of HBV DNA in Hepatocellular Carcinoma (HCC) of a 7 year old American Boy. American Association for Study of Liver Diseases.

Gratton MA, Salvi RJ, Kamen BA: Interaction of noise and cisplatin. Association Research Otolaryngology, 1988.

Ducore J, Mims E, Winick N, Kamen BA: Low-dose "continuous" oral methotrexate (MTX) \pm radiation therapy (RT) for pediatric CNS tumors: A phase I/II study. American Society of Clinical Oncology, 1987.

Sanders J, Kamen BA: Evidence for transcriptional and functional regulation of the membrane folate receptor *in vitro*. Southern Society for Pediatric Research, 1988.

Sanders J, Ducore J, Kamen BA, Ragab A, Whitehead VM: A phase I trial of trimetrexate (TMTX) in children with leukemia and solid tumors. Pro Amer Soc Clin Oncol 6:44, 1987.

Furman WL, Pratt CB, Rivera GK, Vietti TJ, Krisher JP, Kamen BA: Mortality associated with pediatric phase I clinical trials. Pro Am Soc Clin Onc, 1988.

Winick N, Freidman H, Bigner D, Peryea X, Streckfuss A, Kamen B: Methotrexate (MTX), schedule dependent drug accumulation. Proc Amer Assoc Cancer Res, 1988.

Salvi RJ, Gratton MA, Kamen BA, Henderson D: Combined Effects of Noise and Cisplatin. Third International Conference on the Combined Effects of Environmental Factors, 1988.

Winick NJ, Bowman WP, Buchanan GR, Sartain PG, and Kamen BA: Treatment of childhood acute lymphoblastic leukemia (ALL):The incorporation of divided dose oral methotrexate (dMTX)/L-asparaginase (L-asp) and VP-16/Ara-C. Am Soc Clin Oncol 1988.

Winick NJ, Bowman WP, and Kamen BA: Prolonged intensive oral methotrexate (MTX) does not induce its own malabsorption. Pro Am Assoc Cancer Research, 1989.

Mulne A, Smith A, and Kamen B: Marked synergy of methotrexate and non-cytotoxic dipyridamole for a human medulloblastoma cell line as assessed in a clonogenic assay *in vitro*. Proc Am Assoc Cancer Research, 1989.

Schifeling D, George T, McGuirt F, Capizzi RL, and Kamen B: MTX content in squamous cell carcinoma of the head and neck after low dose MTX. Am Soc Clin Oncol 1989.

Willis SA, Lacey SW, Weitman, Kamen BA, and Nisen PA: Folate receptor gene expression is tissue-specific and temporally-regulated. Am Ped Soc/Soc Ped Res.

Weitman SD, Lark R, Coney D, Fort D, Frasca V, Zurawski V, Weinberg A, and Kamen B: Limited human tissue distribution of the folate receptor, an overexpressed tumor cell surface glycoprotein. Am Soc Clin Oncol 1992.

Fort D, Lark R, Smith A, Weitman S, Kamen B: Metabolism of 5-methyltetrahydrofolate ($5\text{CH}_3\text{FH}_4$) in mitogen stimulated human lymphocytes (PHA-L). Pro Am Assoc Cancer Research, 1992.

Orr RB and Kamen BA: UMSCC38 cells gene amplified for the folate receptor synthesize non-functional folate receptor antigen. Proc Am Assoc Cancer Res, 1993.

Lark RH, Frasca V, Smith AK, Cason M and Kamen BA: Regulation of folate uptake is post-translational of folate receptor and folylpolyglutamate synthetase mRNA expression. Proc Am Assoc Cancer Res, 1993.

Kamen BA: Old and new antifolates and the folate receptor: a double edge sword. Proc Am Assoc Cancer Res 35:700-701, 1994.

Winick NJ, Bowman PW, Shuster JJ, Jarcaruso D, Buchanan G and Kamen B: An intensive oral methotrexate (dMTX) regimen protects against lymphoid marrow relapse in childhood acute lymphoblastic leukemia (ALL). ASCO 13: abst 1046, 1994.

Bernini,J., Fort,D., Griener,J., Kane, B.,Chappell,W., Winick,N. and Kamen,B: The use of aminophylline for methotrexate-induced neurotoxicity: evidence for adenosine receptor blockade. Proc Am Assoc Cancer Res, 1995.

Smith, A., Winick, N. and Kamen, B: A case for the use of aminopterin (AMT) rather than methotrexate (MTX) in children with "high risk" acute leukemia based upon metabolic studies. Proc Am Assoc Cancer Res 1995.

Carlson, LR., Lark, RH., Smith AK, Marling-Cason,M., Kamen BA and Weitman SD: Influence of dietary folate on host and tumor growth in two murine xenograft models. Proc Am Assoc Cancer Research, 1995.

Whitehead VM, Vuchich M-J, Carroll D, Lauer SJ, Mahoney D, Shuster JJ, Payment C, Bernstein ML, Akabutu JJ, Bowers T, Kamen BA, Ravindranath Y, Emami A, Beardsley GP, Pullen J and Camitta B: Translocations involving chromosome 12p11-13, methotrexate metabolism and outcome in childhood B-lineage acute lymphoblastic leukemia (ALL). Clinical and Investigative Medicine (Canadian), 1995.

Tkaczewski I, Tong WP, Spriggs D, Bertino JR, Capizzi RL and Kamen BA: Trimetrexate (TMTX) oral bioavailability and lack of cross resistance with HDMTX in patients with recurrent osteosarcoma (OS). ASCO, 1996.

Bostrom B, Erdman GE and Kamen BA: Intrathecal (IT) methotrexate (MTX) results in greater systemic exposure than oral as evidenced by red cell methotrexate concentrations.
ASCO, 1996.

Whitehead VM, Vuchich MJ, Carroll AJ, Lauer SJ, Mahoney D, Shuster JJ, Payment C, Bernstein MJ, Akabutu JJ, Bowen T, Kamen BA, Ravindranath Y, Emami A, Beardsley GP, Pullen DJ, Camitta BC: Translocations involving chromosome 12p11-13, methotrexate metabolism and outcome in childhood B-progenitor cell acute lymphoblastic leukemia (ALL). ASCO, 1996.

Hum MC, Smith AK, Lark RH, Winick NW and Kamen BA: If methotrexate polyglutamates are the answer, is high dose methotrexate the solution? AACR, 1996.

Lewis CM, Pryce KA, Smith AK, Lark RH and Kamen BA: Modulation of folate uptake is dependent on cell density and cell lineage. AACR, 1996.

Whitehead VM, Vuchich MJ, Cooley L, Lauer S, Mahoney D, Shuster J, Payment C, Bernstein M, Akabutu J, Bowen T, Kamen B, Ravindranth Y, Emami A, Beardsley P, Pullen J, & Camitta B: Translocations involving chromosome 12p, methotrexate metabolism and outcome in childhood B-progenitor cell acute lymphoblastic leukemia (ALL): a Pediatric Oncology Group pharmacology pilot study. AACR, 1996.

Herrera L and Kamen B: Fractionated administration of cyclophosphamide (CTX) and etoposide for children with refractory malignancies. ASCO, 1997

Farrow A, Levinson B, Wilson J, Rose K, Marling-Cason M and Kamen B: Pharmacokinetics of low dose oral trimetrexate (TMTX): tablet vs liquid preparation. ASCO, 1997.

Lark RH, Anthony T and Kamen B: Tissue clearance of folate binding proteins and folic acid in a mouse model. AACR, 1997.

Quinn CT, Bottiglieri T, Griener JC, Farrow A, Hum M and Kamen BA: Is methotrexate (MTX) neurotoxicity mediated by increases in homocysteine (hcy) and excitotoxic amino acids (EAA)? ASCO, 1997.

Farrow A, Wilson J, Marling-Cason M, Hum M, Winick N and Kamen BA: Phase I and pharmacokinetic (PK) trial of aminopterin in adults and children with refractory malignancies. ASCO, 1997.

Bottiglieri T, Hyland K, Griener J, Quinn C, Maddux B, Frohman E and Kamen B: Hyper-homocysteinemia is associated with elevation of excitotoxic sulfur amino acids in human csf. Society for Neuroscience, 1997.

Whitehead VM, Payment C, Vuchich M-J, Cooley L, Lauer SJ, Mahoney DH, Shuster JJ, Bernstein ML, Kamen BA, Look AT, Pullen DJ, Camitta B: The TEL-AML1 translocation and methotrexate polyglutamation (MTXPG) levels in childhood B-progenitor cell acute lymphoblastic leukemia (pro-B ALL): a Pediatric Oncology Group study. AACR, 1998.

Mantadakis E, Winick NJ, Ratliff A, Smith AK and Kamen BA: Lack of correlation between MTX metabolism and outcome in children with ALL. ASCO 1999.

Bettachi CJ, Kamen BA, and Cush JJ: Post methotrexate (MTX) CNS toxicity: symptom reduction with dextromethorphan. American College of Rheumatology, presentation Nov. 1999.

Mantadakis E, Smith AK and Kamen BA: Ratio of antifolate/folate uptake but not antifolate uptake alone correlates with treatment outcome in children with acute lymphoblastic leukemia. AACR, 1999

Kamen BA, Finiewicz K, Holcemberg J, Larson R, Miller DS, Muller CY, Ratliff AF and Coleman RL: Aminopterin (AMT), an "old dog with new tricks": Therapeutic and pharmacodynamic results of early phase II trials for patients with acute leukemia and endometrial cancer. Proceedings of AACR-EORTC International Conference 31, 1999.

Cole PD, Gorlick R, Banerjee D, Tong WP, Smith A, Kamen BA, Bertino JR: Effects of overexpression of gamma-glutamyl hydrolase on methotrexate metabolism and resistance. AACR 2000.

Kamen BA and Smith A: *In vitro* data supporting the use of aminopterin in childhood ALL. AACR 2000.

Manatdakis E, Herra L, Bash RO, Leavey PJ, Winick NJ and Kamen BA: Fractionated Cyclophosphamide and etoposide for children with advanced or refractory solid tumors: a phase II window study. ASCO #100304, 2000.

Kamen BA, Cole P, Magill E, Smith AK, James J and Cush J: Coffee and cough medicine are good for anti-folate neurotoxicity: clinical and laboratory correlations. EORTC symposium Fall, 2000.

Winter-Vann A, Kamen BA, Bergo MO, Young SG and Casey PJ: A Novel Pathway for Cell growth Inhibition by Methotrexate. AACR, 2001

Cole PD, Smith AK and Kamen BA: Overcoming Methotrexate Resistance in Osteosarcoma Cell Lines using Nucleoside Analogs. ASCO 2001.

Drachtman R, Cole PD, Smith AK, Asiner J, James JJ, Kamen BA: Dextromethorphan for methotrexate neurotoxicity. ASCO 2001.

Wacker P, Winick NJ, Shuster JJ, Mahoney DH, Lauer S, Kamen BA and Camitta BM: Lack of significant correlation between plasma methotrexate (MTX) , red blood cells (RBC) MTX and RBC folate levels with EFS in children with B-precursor ALL. A pediatric oncology group study. American Society of Hematology, 2001.

Cole PD, Smith AK, Larson RA, Winick N, Hawkins D, Holcenberg J, Kelly K, Kamen BA: Phase II trial of Oral Aminopterin for Adults and Children with refractory Acute Leukemia. Proc Am Assn Cancer Research 43:749, 2002.

Miller DS, Herzog TJ, Gordon AN, Tait DL, vonGruenigen, VE, Hartenbach EM, Williams TE, Kamen BA: A Phase II Trial of aminopterin in patients with advanced, persistent or recurrent endometrial carcinoma. ASCO 2002

Smith AK, Makori B and Kamen B: Regulation of Folate Receptor α (FR α) Function and Localization by Phorbol Esters and Cytoskeletal Disrupting Agents is different in Normal and Malignant Cells *In Vitro*. AACR 2003

Cole, PD, Smith AK and Kamen BA: Aminopterin (AMT) is not just another methotrexate: Differences in metabolism may account for increased potency and utility as an anti-folate. Proc Am Assn Cancer Research 44:816, 2003.

Cush JJ, Law L and Kamen BA: Vitamin A Supplementation as Treatment for Mucosal and Gastrointestinal Toxicity Associated with Weekly Methotrexate Therapy. American College of Rheumatology, 2003.

Escalante A, Smith AK, Kamen BA and Cole PD: Pharmacodynamic equivalence of aminopterin and methotrexate in patients with acute lymphoblastic leukemia. AACR 2004.

Cole PD, Drachtman RA, Masterson M, Shenkerman A, Smith AK, Makori B, Kamen BA: Aminopterin Can Replace Methotrexate For Children With Newly Diagnosed Acute Lymphoblastic Leukemia Without Excessive Toxicity. American Society of Hematology, 2004.